REMARKS

The above amendments are made to more clearly define the invention under United States practice. Please enter this amendment prior to calculation of the filing fee.

Respectfully submitted,

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Lorna Morehead

Version With Markings to Show Changes Made:

1. (Amended) Vaccine for the protective vaccination or therapy of a lentivirus infection in *Felidae* [which has the characteristic that it contains] comprising an immunising polynucleotide sequence which contains or consists of at least a part of the gene of a protein of the corresponding virus, particularly of the envelope protein (*env* gene), under the control of a eukaryotic promoter which is active in the corresponding animal.

2. (Amended) Vaccine in accordance with Claim 1 [which has the characteristic that] wherein the lentivirus is a lentivirus of an animal of the genus *Felidae*, specifically the domestic cat.

3. (Amended) Vaccine in accordance with Claim 2 [which has the characteristic that] wherein the lentivirus is the feline immune deficiency virus (FIV).

4. (Amended) Vaccine in accordance with [Claims 1 to 3 which has the characteristic that] Claim 1 wherein the immunising polynucleotide sequence contains a coding sequence which contains or consists of the extraviral or extracellularly situated domain of the *env* gene product, or a part of this.

5. (Amended) Vaccine in accordance with Claim 4 [which has the characteristic that] wherein the immunising polynucleotide sequence contains or consists of a coding sequence for at least twenty aminoacids of the transmembrane portion of the *env* gene product.

6. (Amended) Vaccine in accordance with [Claims 1 to 5 which has the characteristic that it] Claim 1 which also contains at least one immunising section of the gene coding for an internal protein of the lentivirus[, for example the *gag* gene].

7. (Amended) Vaccine in accordance with [claims 1 to 6 which has the characteristic that] Claim 1 wherein the immunising polynucleotide sequence contains the coding sequence (SEQ ID NO. 4) of the plasmid sequence given under SEQ ID NO 1 or a sequence

which is 85% identical with the coding sequence (SEQ ID NO 4) of the plasmid sequence given under SEQ ID NO 1, or a coding sequence which, without degeneration of the genetic code, is at least 85% identical with the coding sequence of the sequence given under SEQ ID NO 1.

8. (Amended) Vaccine in accordance with [Claims 1 to 7 which is characterised by] Claim 1 containing an accessory polynucleotide sequence which contains the sequences coding for IL-12 under the control of one or more eukaryotic promoters which are active in the corresponding animal.

9. (Amended) Vaccine in accordance with [Claims 1 to 7 which is characterised by] Claim 1 containing an accessory polynucleotide sequence which contains the sequence coding for IL-16 under the control of a eukaryotic promoter which is active in the corresponding animal.

10. (Amended) Vaccine in accordance with [Claims 1 to 7 which is characterised by] Claim 1 containing an accessory polynucleotide sequence which contains the sequence coding for IL-12 and IL-16 under the control of one or more eukaryotic promoters which are active in the corresponding animal.

11. (Amended) Vaccine in accordance with [Claims 8 to 10 which is characterised by] Claim 8 containing an accessory polynucleotide sequence which codes for both subunits of feline IL-12 and/or for feline IL-16 and [that] wherein these sequences are under the control of a eukaryotic promoter which is active in the cat.

12. (Amended) Vaccine in accordance with [Claims 8 to 11 which is characterised by] Claim 8 containing an accessory polynucleotide sequence which contains at least one base sequence of the type $N^1N^2CGN^3N^4$, where N^1N^2 is an element of the group GT, GG, GA, AT or AA and N^3N^4 is an element of the group CT or TT.

13. (Amended) Vaccine in accordance with [at least one of Claims 1 to 12 which is characterised by the fact that] Claim 1 in which the immunising polynucleotide sequences and/or

the accessory polynucleotide sequences are present as expression constructs which consist of linear and covalently capped molecules of desoxyribonucleic acid which contain a linear double-stranded region and in which the single strands which combine to form double strands are connected by short single-stranded loops of desoxyribonucleic acid and in which the single strands which combine to form double strands only consist of the coding sequence, a terminator sequence and a promoter which is active in the animal which is immunised.

14. (Amended) Vaccine in accordance with [Claims 8 to 13 which is characterised by the fact that] Claim 8 in which the accessory polynucleotide sequence contains a coding sequence in accordance with SEQ ID NO 8 (IL-12 p40), a coding sequence in accordance with SEQ ID NO 9 (IL-12 p35), coding sequences SEQ ID NO 10 (IL-16), SEQ ID NO 5 (CpG) or SEQ ID NO 6 (CpG) or a sequence which is complementary to one of these sequences.

15. (Amended) Vaccine [in accordance with Claims 1 to 14] for the vaccination or therapy of lentivirus infections in animals characterised by the presence of an immunising polynucleotide sequence and, in some cases, an accessory polynucleotide sequence in accordance with [Claims 8 to 12] Claim 8, applied to a suitable massive and inert carrier material, in such a way that it can be accelerated into the skin of the animal, penetrate into the cells of the animal and be expressed there.

17. (Amended) Vaccine in accordance with [Claims 15 or 16] Claim 15 which is characterised by the carrier material being gold.

18. (Amended) Vaccine for the protective vaccination or therapy of an infection with lentivirus in *Felidae* which is characterised by the fact that it contains an immunising protein or [part of a protein, particularly] the envelope protein of the corresponding lentivirus, together with IL-12 and/or IL-16 in the form of protein.